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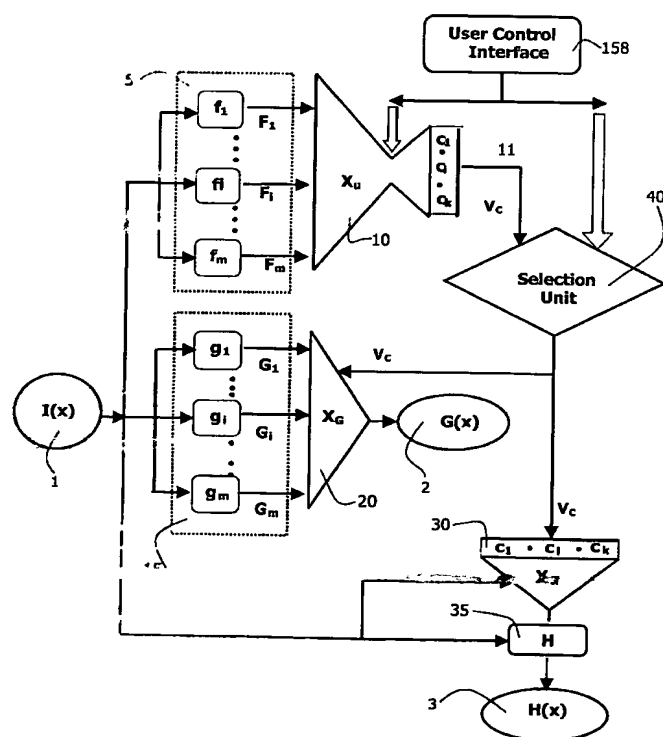
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(54) Title: **IMAGE VIEWING SYSTEM AND METHOD FOR GENERATING FILTERS FOR FILTERING IMAGE FEATURES**
According to their type(57) Abstract: Image processing system for generating
a multidimensional adaptive oriented filter to be
applied to the point intensities of a d-dimensional
image, comprising analyzing means with means
(5, fi) to estimate at each image point a probability
measure (Fi) of the presence of a type of feature of
interest and a weighting control model (10) issuing
a weighting control vector (11, VC) constructed
from said probability measure, for the user to control
synthesized adaptive kernels at each image point;
and synthesizing means for generating the filter
kernels at each image point adapted to the type of
the features of interest, whose filtering strength is
controlled by the weighting control vector. The
system may comprise a selection unit (40) for the
user to select synthesizing means for generating
"pre-mixing filtering means" comprising combining
means (30, XH) dependent on the type of the image
features having inputs for the weighting control
vector (11, VC) and the image data [I(x)] and
having an output for weighted adaptive kernels
(35, H) adapted to the type of the image
features to produce the filtered image signal [Fi(x)],
and/or "post-mixing filtering means" comprising
both isotropic and anisotropic filtering means
[15, gi] applied independently of the type of the
image features, whose outputs (Gi) are combined
at each image point and adapted using the
weighting control vector (11, VC) to produce the
filtered image signal [G(x)].

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